

IMPROVED METHOD AND APPARATUS FOR LOCKING CHARGES INTO A CHARGE CARRIER

Abstract

The invention uses a pair of opposed tabs on the charge holder to engage a groove in the case of the shape charge. The case is generally conical in shape. However, the front opening of the case has both a first and second circumferential ridge separated by a groove. The diameter of the groove generally matches the distance between tabs. The second ridge can have a flat milled thereon to allow case to be inserted until the tabs contact the forward or first ridge. This locates the tabs between the first and second ridges and over the groove. The case is then rotated so that the tabs are captured between the two ridges. Once installed, the detonation cord is attached to the case. The cord helps prevent any rotation of the case, thereby securing it into the charge holder. Thus, the use of easily milled tabs on the charge holder in conjunction with an easily milled groove and flats on the case provide an improved apparatus and method for securing the shape charge into the charge holder of a perforation gun. When the charges are all installed, and the detonation cord is properly linked between each charge, then the charge holder can be placed in a carrier.